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CLAIMS

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- 1. A polynucleotide selected from the group consisting of:
- (a) a polynucleotide containing a nucleotide sequence set forth in SEQ ID NO:1 or a fragment thereof;
- (b) a polynucleotide containing a sequence encoding an amino acid sequence set forth in SEQIDNO:2 or a fragment thereof;
- (c) a polynucleotide encoding a variant polypeptide wherein in a amino acid sequence set forth in SEQ ID NO:2, one or more amino acids thereof have at least one mutation selected from the group consisting of substitution, addition and deletion;
- (d) a polynucleotide hybridizing under stringent conditions with any of the polynucleotides (a) to (c); and
- (e) a polynucleotide consisting of a nucleotide sequence having at least 70% identity with any of the polynucleotides(a) to (c) or sequences complementary thereto,

wherein the polynucleotide encodes a peptide having an activity selected from the group consisting of vascular endothelial cell growth activity, activity in promoting transcription from c-fos promoter, activity in promoting transcription from VEGF promoter, and angiogenesis activity.

2. The polynucleotide according to claim 1, which has a nucleotide

- sequence set forth in SEQ ID NO:1.
- 3. The polynucleotide according to claim 1, which encodes an amino acid sequence set forth in SEQ ID NO:2.

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- 4. The polynucleotide according to claim 1, which encodes a peptide having angiogenesis activity.
- 5. The polynucleotide according to claim 1, which encodes a peptide having vascular endothelial cell growth activity.
- 5 6. A pharmaceutical composition for angiogenesis, which comprises the polynucleotide of claim 1.
 - A pharmaceutical composition for growth of vascular endothelial cells, which comprises the polynucleotide of claim
 1.
- 8. A pharmaceutical composition for treatment of a disease selected from the group consisting of occlusive arterial disease, arteriosclerosis obliterans, Buerger disease, angina, myocardial infarction, cerebral infarction, ischemic heart disease, and ischemic cerebral disease, which comprises the polynucleotide of claim 1.
 - 9. A method of generating angiogenesis of tissue, comprising:
 - (1) a step of providing tissue for angiogenesis; and
 - (2) a step of introducing a nucleic acid containing the polynucleotide of claim 1 into a vascular endothelial cell .
- 20 10. The method according to claim 9, wherein the angiogenesis is carried out *in vivo*, *ex vivo* or *in vitro*.
 - 11. The method according to claim 9, wherein the tissue is in a disease-state selected from the group consisting of occlusive arterial disease, arteriosclerosis obliterans, Buerger disease,

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angina, myocardial infarction, cerebral infarction, ischemic heart disease, and ischemic cerebral disease.

- 12. A method of proliferating a vascular endothelial cell, comprising:
 - (1) a step of providing a vascular endothelial cell; and
- (2) a step of introducing a nucleic acid containing the polynucleotide of claim 1 into the vascular endothelial cell.
- 13. The method according to claim 12, wherein the proliferation of the vascular endothelial cell is carried out *in vivo*, *ex vivo*
- 10 or in vitro.

- 14. The method according to claim 12, wherein the vascular endothelial cell is in tissue affected by a disease selected from the group consisting of occlusive arterial disease, arteriosclerosis obliterans, Buerger disease, angina,
- myocardial infarction, cerebral infarction, ischemic heart disease, and ischemic cerebral disease.
 - 15. A plasmid comprising the polynucleotide of claim 1.
 - 16. Agene-transfer vector comprising the polynucleotide of claim1.
- 20 17. A method of proliferating a vascular endothelial cell, comprising:
 - (1) a step of providing a vascular endothelial cell; and
 - (2) a step of contacting the gene-transfer vector of claim
 16 with the vascular endothelial cell.

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- 18. A polypeptide encoded by the polynucleotide of claim 1.
- 19. A polypeptide selected from the group consisting of:
- (a) a polypeptide containing an amino acid sequence encoded by a nucleotide sequence set forth in SEQ ID NO:1 or a fragment thereof;
- (b) a polypeptide containing an amino acid sequence set forth in SEQ ID NO:2 or a fragment thereof;
- (c) a variant polypeptide wherein in an amino acid sequence set forth in SEQ ID NO:2, one or more amino acids have at least one mutation selected from the group consisting of substitution, addition and deletion; and
- (d) a polypeptide consisting of an amino acid sequence having at least 70% identity with an amino acid sequence of any one of the polypeptides (a) to (c),
- wherein the polypeptide has an activity selected from the group consisting of a vascular endothelial cell growth activity, activity in promoting transcription from c-fos promoter, activity in promoting transcription from VEGF promoter, and angiogenesis activity.
- 20 20. The polypeptide according to claim 19, which is encoded by a nucleotide sequence set forth in SEQ ID NO:1.
 - 21. The polypeptide according to claim 19, which has an amino acid sequence set forth in SEQ ID NO:2.
 - 22. The polypeptide according to claim 19, which has angiogenesis

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activity.

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- 23. The polypeptide according to claim 19, which has vascular endothelial cell growth activity.
- 24. A pharmaceutical composition for angiogenesis, which comprises the polypeptide of claim 19.
- 25. A pharmaceutical composition for growth of vascular endothelial cells, which comprises the polypeptide of claim 19.
- 26. A pharmaceutical composition for the treatment of a disease selected from the group consisting of occlusive arterial disease, $\frac{1}{2} \left(\frac{1}{2} \right) = \frac{1}{2} \left(\frac{1}{2} \right) \left(\frac{$
- arteriosclerosis obliterans, Buerger disease, angina, myocardial infarction, cerebral infarction, ischemic heart disease, and ischemic cerebral disease, which comprises the polypeptide of claim 19.
 - 27. A method of generating angiogenesis of tissue, comprising:
 - (1) a step of providing tissue for angiogenesis; and
 - (2) a step of contacting the polypeptide of claim 19 with a vascular endothelial cell.
 - 28. The method according to claim 27, wherein the angiogenesis is carried out *in vivo*, *ex vivo* or *in vitro*.
- 29. The method according to claim 27, wherein the tissue is in a disease state selected from the group consisting of occlusive arterial disease, arteriosclerosis obliterans, Buerger disease, angina, myocardial infarction, cerebral infarction, ischemic heart disease, and ischemic cerebral disease.

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or in vitro.

- 30. A method of proliferating a vascular endothelial cell, comprising:
 - (1) a step of providing a vascular endothelial cell; and
- (2) a step of contacting the polypeptide of claim 18 with the vascular endothelial cell.
- 31. The method according to claim 30, wherein the proliferation of the vascular endothelial cell is carried out *in vivo*, *ex vivo*
- 32. The method according to claim 30, wherein the vascular endothelial cell is in tissue affected by a disease selected from the group consisting of occlusive arterial disease, arteriosclerosis obliterans, Buerger disease, angina, myocardial infarction, cerebral infarction, ischemic heart disease, and ischemic cerebral disease.
- 33. An antimicrobial agent comprising the polynucleotide of claim1.
 - 34. An antimicrobial agent comprising the polypeptide of claim 18 or 19.
- 35. A pharmaceutical composition for treating infections, which comprises the polynucleotide of claim 1.
 - 36. A pharmaceutical composition for treating infections, which comprises the polypeptide of claim 18 or 19.
 - 37. A composition for enhancing the production of IGF, which comprises the polynucleotide of claim 1.

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38. A composition for enhancing the production of IGF, which comprises the polypeptide of claim 18 or 19.